

MALLOPHAGA FROM BIRDS OF THE ORIENTAL REGION. PART IX.  
**STURNIDOECUS PHILIPPENSIS, N. SP.**  
(ISCHNOCERA: PHILOPTERIDAE)

B. K. TANDAN and P. KUMAR, *Department of Zoology,  
University of Lucknow, India*

**ABSTRACT**—*Sturnidoecus philippensis*, n. sp., is described and illustrated from specimens collected off *Basilornis miranda* (Hartert) from Davao, Mindanao Island, Philippines.

This is the second paper based on Mallophaga received from the collections of the U. S. National Museum, and contains the description of a new species of *Sturnidoecus* Eichler. Explanations to abbreviations used in describing the length and position of important setae are given in Kumar & Tandan (1968).

Genus *Sturnidoecus* Eichler, 1944

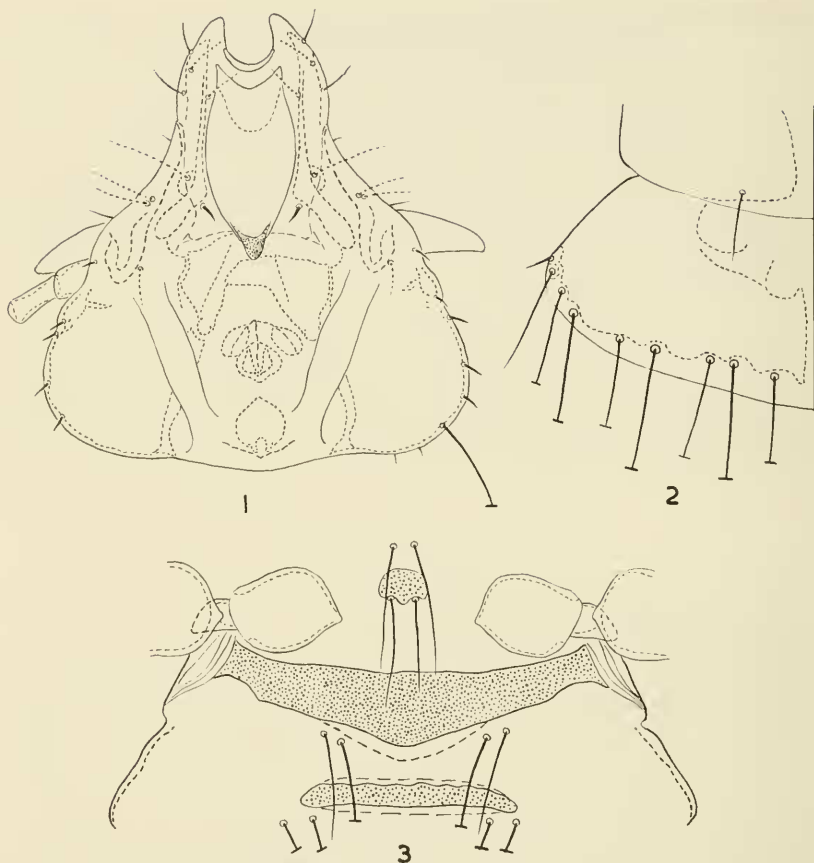
*Sturnidoecus philippensis* sp. n.  
(Figs. 1-7)

Type host: *Basilornis miranda* (Hartert)

Length of the sexes shows slight dimorphism but no overlap.

General characters of head and thorax as in figs. 1-3. Hyaline margin evident laterally between the 2 anterior setae, and deeply incised and slightly thickened medially. Ventral carinae extend forwards and fused to hyaline margin at about the level of anterior setae 3. Dorsal anterior plate long and posteriorly produced into a heavily sclerotized point which overlaps the dorsal preantennal suture; its anterior margin greatly curved and antero-lateral ends pointed; in female it is more rounded posteriorly, than in the male. Ventral plate narrow and faint. Dorsal margin of head between preconal and preantennal setae slightly swollen. Cornea not evident. Tip of conus reaches almost to middle of antennal segment 1. Important setae as follows: anterior dorsal sp, lies in the dorsal preantennal suture; anterior seta 1 m or sh, fine, and the only other anterior seta (probably 3) sh; dorsal submarginal 0 or 1 + 0 also, sh to ml; preantennal sp; preconal sh; mandibular ml; ocular sp, well on temporal margin; postnodal absent posttemporal absent or m. Marginal temporal 4 elg, and remaining five sp; in 1 male 4-6 absent on one side. Ventral submarginal 1 and 2 are outer relative to the margins of ventral plate; 1 is anterior to 2 and on changing the focus the dorsal submarginal appears at about the same level as 2. Of much importance is the position of the more anterior setae relative to each other (fig. 1).

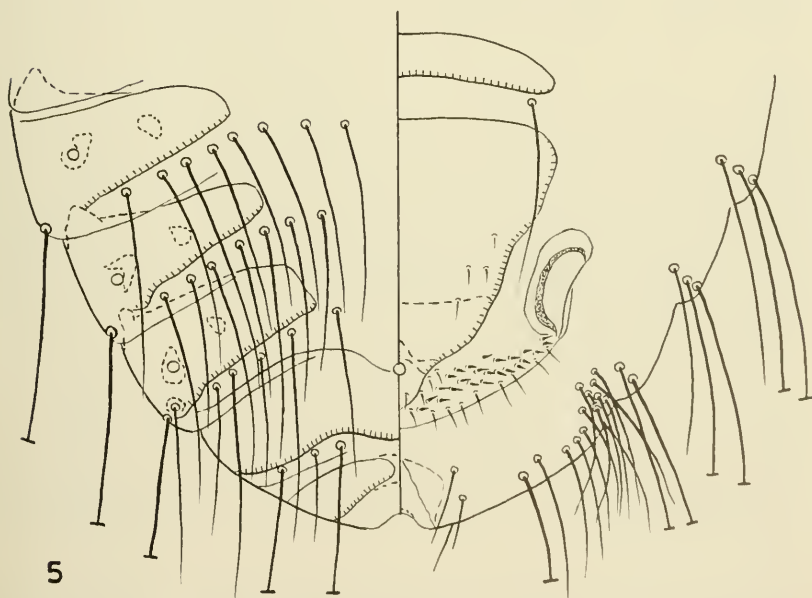
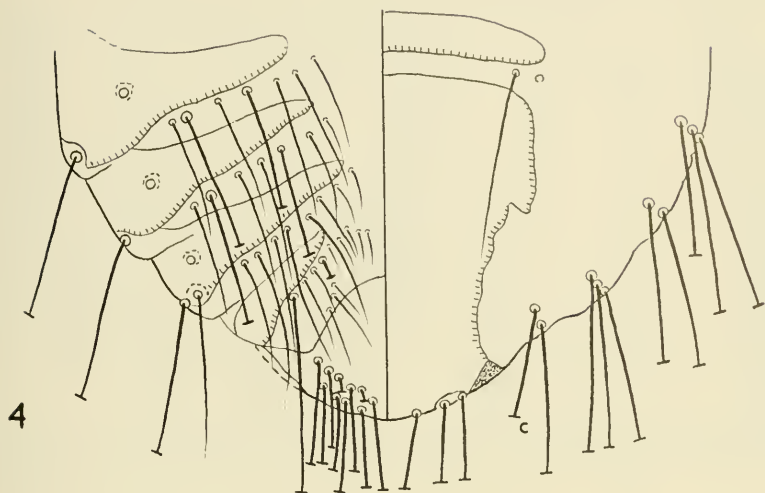
Abdominal segmentation typical. Tergal thickening of segments II-VIII appears as lateral tergites. In the male, segment IX + X also with lateral tergites; and tergum XI, bearing the anal setae, unhardened (fig. 4). In the female, segment IX + X continuous, medially characteristic in shape; segment XI either as lateral tergites or continuous across the segment (fig. 5). Terminal segment in male rounded. Sternal thickening of segments II-VI appear as narrow plates. Segment II heavily sclerotized and extends across the segment (fig. 3); III-VI are less



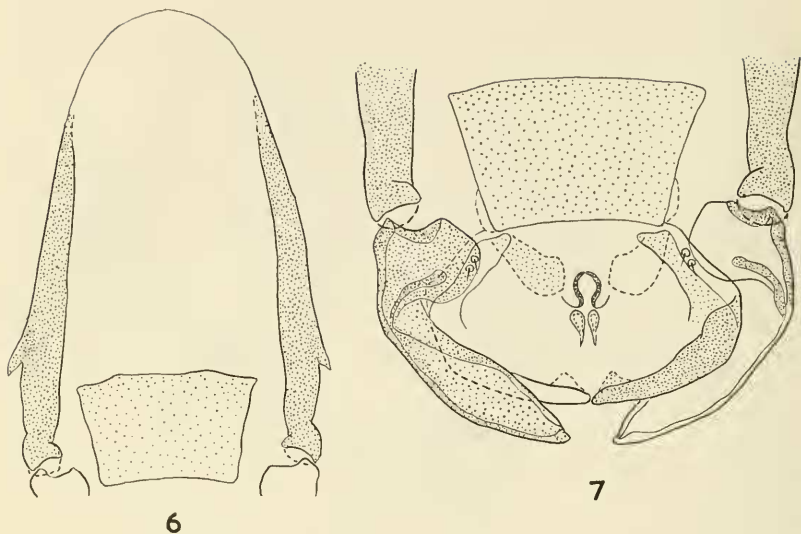
Figs. 1-3. *Sturnidoecus philippensis*, n. sp.: 1, head, male, marginal temporal setae 4-6 absent on right-hand side, ventral setae shown by broken lines; 2, thorax, female, one-half only; 3, meso- and meta-sterna and sterna II, III, male.

intensely sclerotized median plates. Behind sternite VI is the sub-genital plate of which the shape is characteristic. In male external genitalia, the mesosome and parameres are short, the former is much wider than long, and the latter are directed obliquely towards the midline (figs. 6, 7). 3 + 3 setae present centrally in the mesosome of other congeneric species not evident due possibly to dark stain. In the female there are no supra- or post-vulval sclerites. Spermatheca has a sclerotized calyx; opening of spermathecal duct is strengthened anteriorly by a characteristic sclerite.

Chaetotaxy. Pronotal; 1 + 1 ml to lg, relatively close to midline. Pteronotal; 19 or 20; 1 + 1 are sp, 1 + 1 are the thoracic trichobothria, and 15 or 16 are lg to elg. The sp seta is the first (or outer most) and slightly ventral to the second or thoracic trichobothrium, and these two are usually separated by a distinct gap. On both meso- and meta-sternum, 1 + 1 lg setae.



Figs. 4, 5. *Sturnidoecus philippensis*, n. sp.: 4, male terminalia; 5, female terminalia.



Figs. 6, 7. *Sturnidoecus philippensis*, n. sp.: 6, basal apodeme; 7, parameres and mesosome.

Abdominal. That of *holotype* or *allotype* is given first; of *paratype*, if it differs, follows.

Male (2). Tergal. II, no ant tc. Posterior. II, III, 8; IV, V, 12; VI, 14, 12; VII, 14; VIII, 2tr + 15, tr on tergite but sclerotization around it feeble; IX + X, (fig. 4) 9 sh to elg + 11, 5 + 5 only lg to elg no sh apparent; anal ml to lg. Pleural. II, III, 0; IV, 2 + 2; V, 3 + 3, 2 + 4; VI, 4 + 4, 3 + 5; VII, 4 + 3, 4 + 4; VIII, 3 + 4, 3 + 3; setae *c*, 2 + 2 (1 lg, 1 elg), 2 + 1 (as lg absent). Sternal. II, 2 + 2 not too close to the midline; III–VI, 2 + 2; no setae on or lateral to sub-genital plate. Posterior to ano-genital crypt, 15 + 10, 10 + 9 lg to elg dorsal, marginal and ventral setae.

Female (2). Tergal. II, no ant tc. Posterior. II, 8; III, 11, 10; IV, V, 15, 14; VI, 15; VII, 16, 15; VIII, 2 tr + 13, 2 + 9, tr as in male; IX + X, (fig. 5) 3 lg to elg + 3, 3 + 4. Pleural. II, III, 0; IV, 3 + 2, 3 + 3; V, 3 + 3, 4 + 3; VI, 4 + 3, 4 + 4; VII, 4 + 3, 4 + 4; VIII, 3 + 3; *c*, not identifiable. Sternal. II–IV, 2 + 2; V, 2 + 3, 3 + 1; VI, 1 + 1; slightly posterior to pleural on VIII, 19 + 19, 15 + 14 all lg, none sp, some of these might be homologous to *c* described for the male; on sub-genital plate, 5 + 5, 5 + 4 sh; on margin of vulva, 70 (45 peg-like, 16 sh rather lateral, 9 sh rather central), 67 (47 + 12 + 8). Anal, 2 dorsal, 4 ventral, all ml.

On terga IV–VII, 1 + 1 outer most setae in female and 1–3 each side (total 3–5) in male are separated from the rest of the tergal setae by a distinct gap. These could perhaps be regarded as the post-spiracular setae.

Measurements of types given in Table 1.

Type series. Collected in the city and Province of Davao, Mindanao Island, Philippine Islands. *Holotype* male, and *allotype* female, from

Table 1. Measurements in mm, corrected to two decimal places, of *Sturnidoecus philippensis*, n. sp., mounted in Canada balsam.

		Male		Female	
		Holotype	Paratype	Allotype	Paratype
Head	Length	0.61	0.59	0.68	0.69
	Breadth	0.55	0.57	0.62	0.61
Prothorax	Length	0.12	0.12	0.15	0.14
	Breadth	0.35	0.35	0.39	0.37
Pterotorax	Length	0.17	0.19	0.21	0.22
	Breadth	0.48	0.47	0.55	0.51
Abdomen	Length	0.82	0.75	1.06	0.94
	Breadth	0.77	0.76	0.86	0.79
Total length		1.71	1.66	2.10	1.99
Head index		0.91	0.95	0.92	0.88

*Basilornis miranda* (Hartert, 1903), on August 23, 1946. *Paratypes*; 1 male and 1 female, from the same host and locality, on August 8, 1946.

Discussion. *Sturnidoecus philippensis* is distinguished from the congeneric species given in the check list of Mallophaga by Hopkins & Clay (1952, 1953), and described since then by Ansari (1955), Carriker (1956) and Tendeiro (1963), by the following combination of characters: shape of the preantennal region of head and position of anterior head setae; the deep median incision in the hyaline margin and the posteriorly pointed dorsal anterior plate; position of pronotal setae and number of setae on meso- and meta-sterna; the characteristic sternite II; shape of the sub-genital plate. Further in the male by the shape of the last abdominal segment and details of genitalia, and in the female by the number of lateral setae posterior to pleural setae on VIII and on margin of vulva, and the absence of post- or supra-vulval sclerites.

#### ACKNOWLEDGMENTS

We are most grateful to Dr. K. C. Emerson for the loan of material and for several valuable suggestions. As this research has been financed in part by a grant, FG-In-179 (A7-ENT-28), made to B. K. T. by the U. S. Department of Agriculture under P. L. 480, thanks are expressed to the U. S. D. A. and to the scientists who sponsored the grant. P. K. is thankful to the Govt. of India also for the award of a Research Training Scholarship.

#### REFERENCES

- Ansari, M. A. R. 1955. Studies on Ischnoceran Mallophaga parasitic on Turdidae (sens. lat.). Pakistan J. Hlth. 5:47-76.
- Carriker, M. A., Jr. 1956. Report on a collection of Mallophaga, largely Mexican (Part II). Florida Ent. 39:19-43.
- Hopkins, G. H. E. and T. Clay. 1952. A check list of the genera and species of Mallophaga. Brit. Mus. (Nat. Hist.), London.

- Hopkins, G. H. E. and T. Clay. 1953. Additions and corrections to the check list of Mallophaga. *Ann. Mag. Nat. Hist.* (12) 6:424-448.
- Kumar, P. and B. K. Tandan. 1968. Three new species of the Mallophaga genus *Ardeicola* Clay, 1935 (Ischnocera: Philopteridae). *Trans. R. Ent. Soc. Lond.* 120: in press.
- Tendeiro, J. 1963. Observations sur des Ischnocera africains, avec description de 12 espèces et 2 sous-espèces nouvelles (suite et fin). *Bol. Cult. Guiné Portug.* 69:13-106.

---

**LECTOTYPE DESIGNATIONS IN THE GENUS HETEROSPILUS**  
(HYMENOPTERA: BRACONIDAE)

PAUL M. MARSH, *Systematic Entomology Laboratory,*  
*Entomology Research Division, Agr. Res. Ser., USDA*<sup>1</sup>

ABSTRACT—Lectotypes are designated for 14 Nearctic species of the genus *Heterospilus* Haliday in the U. S. National Museum collection.

As a preliminary step to a revision of the Nearctic species of *Heterospilus* Haliday, I have found it necessary to study the type specimens of several species in the U.S. National Museum and to designate lectotypes. Whenever possible I have selected a female as the lectotype. In several instances one or more of the syntypes bore a "type" or "paratype" label, but I did not consider these as type designations if they were not so indicated by the author in the original description. In all cases I chose as the lectotype a specimen which was without question part of the original syntypical series. This choice was dictated by the original description and/or notes in the files of the U.S. National Museum and U.S. Department of Agriculture.

I have placed a black and red lectotype label on all lectotypes and similar paralectotype labels on all the remaining syntypes. The species considered here are arranged alphabetically with the original generic combination indicated in brackets.

I wish to thank Mr. C. F. W. Muesebeck for his advice and many helpful suggestions during the preparation of this paper.

*aciculatus* (Ashmead), 1893, p. 76. [*Caenophanes*]

This species was described by Ashmead only as he included it in his key to the genus *Caenophanes*. He indicated that he had seen both males and females but did not designate a type nor indicate a type locality. The museum type catalog indicates the type locality as being "Virginia." The collection contains 1 female from Virginia and 1 female and 2 males from Jacksonville, Florida, labeled by Ashmead as *Caeno-*

---

<sup>1</sup> Mailing address: c/o U.S. National Museum, Washington, D.C. 20560.